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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,146	04/09/2001	Thomas N. Toombs	M-10234-1D US	1045

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EXAMINER

KIM, HONG CHONG

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 09/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/829,146	TOOMBS ET AL.
	Examiner Hong C Kim	Art Unit 2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 April 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 17-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 17-26 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 09 April 2001 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2&5.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

Detailed Action

1. Claims 17-26 are presented for examination. This office action is in response to the application filed on 4/09/2001.

Information Disclosure Statement

2. Receipt is acknowledged of information disclosure statements filed on 4/9/01 and 10/18/02, which the statements have been placed of record in the file. Information disclosed and listed on PTO 1449 were considered.

Claim Objections

3. Claim 26 is objected to because of the following informalities: as to claim 26, it appears that 22 should be changed to 23. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 23 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Harari et al.

(Harari) U.S. Patent 5,418,752 or Claims 23 and 26 are rejected under 35 U.S.C. 102(a) as being anticipated by The MultiMediaCard, System Specification Version 1.4, MMCA Technical Committee.

As to claim 23, Harari discloses the invention as claimed. Harari discloses a memory system (Fig. 1B) comprises a plurality of memory groups (Fig. 3A Refs. 211 and 213), each of the memory groups comprising a plurality of memory cells; a plurality of group tags, each of the group tags corresponding to one if the memory groups, each of the group tags indicating whether the memory cells under the corresponding memory group are write protected (col. 6 lines 41-46); and wherein any combination of the memory groups can be write protected (col. 1 line 61 thru col. 2 line 1).

Alternatively, As to claim 23, MultiMediaCard discloses the invention as claimed. Harari discloses a memory system (Fig. 1) comprises a plurality of memory groups (Fig. 3), each of the memory groups comprising a plurality of memory cells; a plurality of group tags, each of the group tags corresponding to one if the memory groups, each of the group tags indicating whether the memory cells under the corresponding memory group are write protected (page 28-29); and wherein any combination of the memory groups can be write protected (page 28-29).

As to claim 26, Harari further discloses a flash memory (abstract line 1).

MultiMediaCard further discloses a flash memory (Fig. 6).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harari et al. (Harari) U.S. Patent 5,418,752 in view of The MultiMediaCard, System Specification Version 1.4, MMCA Technical Committee.

As to claim 24, Harari discloses the invention as claimed above, however, Harari does not specifically disclose the number of memory cells in each memory group is configurable. MultiMediaCard discloses the number of memory cells in each memory group is configurable (Page 57) for the purpose of accommodating different devices and optimizing flash devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the number of memory cells in each memory group is configurable as shown in MultiMediaCard into the invention of Harari because it would accommodate different devices and optimize flash devices.

As to claim 25, MultiMediaCard further discloses the corresponding cells in each memory groups is calculated in real time (Page 57).

8. Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harari et al. (Harari) U.S. Patent 5,418,752 in view of The MultiMediaCard, System Specification Version 1.4, MMCA Technical Committee.

As to claim 17, Harari discloses a memory system (Fig. 1B) comprises a plurality of memory groups, each of the memory groups comprising a plurality of memory sectors, each of the memory sectors (col. 1 line 61 thru col. 2 line 1) comprising a plurality of memory cells; a plurality of sector tags, each of the sector tags corresponds to a memory sector, each of the sector tags (col. 6 lines 41-46) indicating whether the memory cells under the corresponding memory sector are erasable, wherein all the memory cells belong to one memory sector are erasable when the corresponding sector tag is set, wherein any combination of memory sectors in a memory group can be simultaneously erased (col. 1 line 61 thru col. 2 line 1), however, Harari does not specifically disclose a plurality of group tags, each of the group tags corresponds to one of the memory groups, each of the group tags indicating whether the memory cells under the corresponding memory group are erasable, wherein all the memory cells belong to one memory group are erasable when the corresponding group is set, wherein any combination of memory groups can be simultaneously erased.

MultiMediaCard discloses a plurality of group tags, each of the group tags corresponds to one of the memory groups, each of the group tags indicating whether the memory cells under the corresponding memory group are erasable, wherein all the memory cells belong to one memory group are erasable when the corresponding group is set, wherein any combination of memory

groups can be simultaneously erased (pp 28, 29, 44, 57) for the purpose of increasing the memory erasing speed thereby increasing the access bandwidth.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate plurality of group tags, each of the group tags corresponds to one of the memory groups, each of the group tags indicating whether the memory cells under the corresponding memory group are erasable, wherein all the memory cells belong to one memory group are erasable when the corresponding group is set, wherein any combination of memory groups can be simultaneously erased as shown in MultiMediaCard into the invention of Harari because it would increase the memory access speed.

As to claim 18, MultiMediaCard further discloses the number of memory sectors in each memory group is configurable (Page 57).

As to claim 19, MultiMediaCard further discloses the corresponding sectors in each memory groups is calculated in real time (Page 57).

As to claim 20, MultiMediaCard further discloses the number of memory cells in each memory sector is configurable (Page 57).

As to claim 21, MultiMediaCard further discloses the corresponding cells in each

memory sectors is calculated in real time (Page 57).

As to claim 22, Harari further discloses a flash memory (abstract line 1)

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.
10. a shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02, 710.02(b)).
11. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. § 1.111(c).
12. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist

examiner to locate the appropriate paragraphs.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matt Kim, can be reached on (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

14. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to TC-2100:

After-Final (703) 746-7238
Official (703) 746-7239 (for formal communications intended for entry)

Non-Official/Draft (703) 746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

HK 
Primary Patent Examiner
September 11, 2003